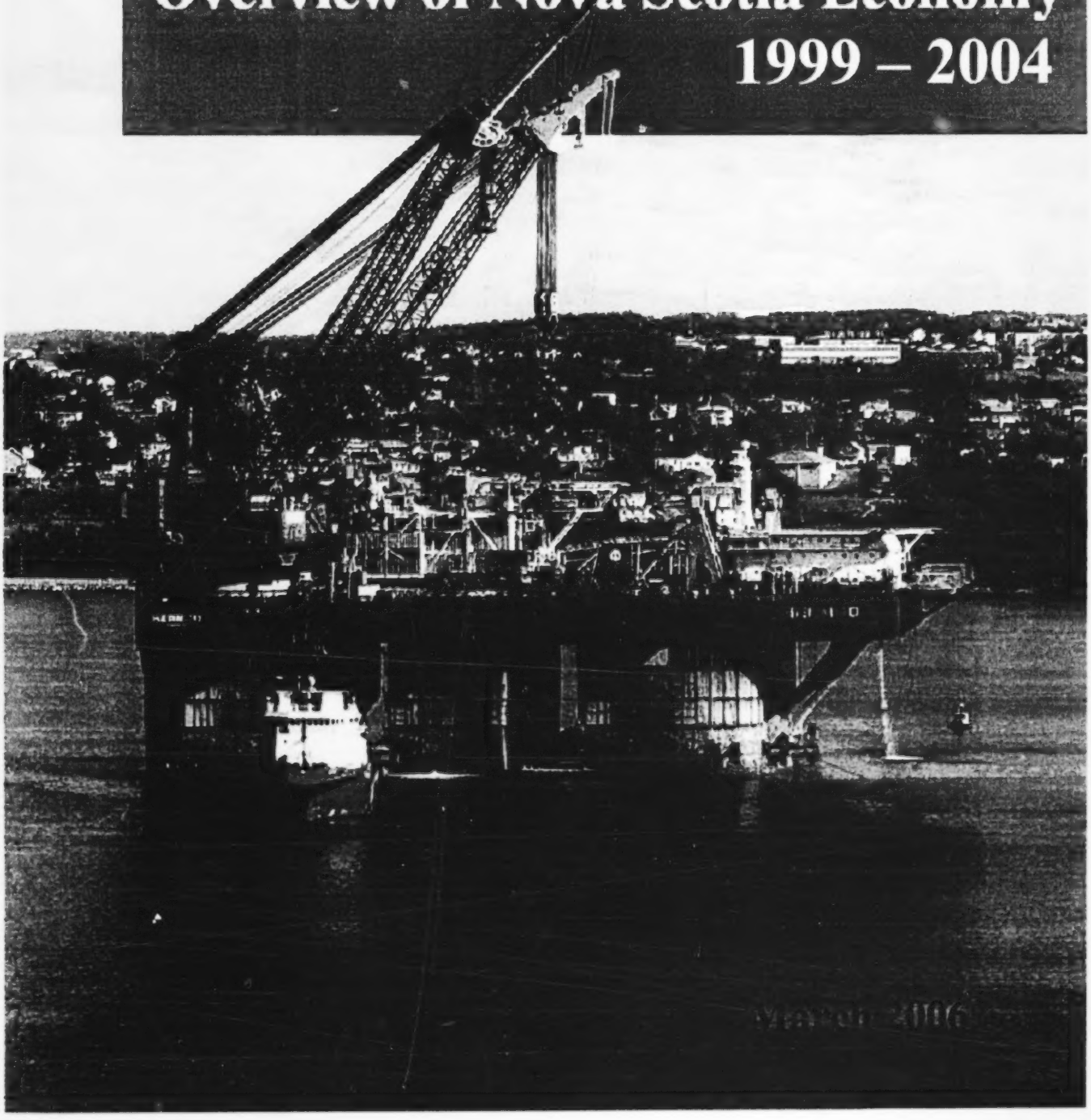
NOVA SCOTIA

Finance
Economics and Statistics

Overview of Nova Scotia Economy 1999 – 2004



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Overview of Nova Scotia Economy

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Hermond - a heavy lift vessel owned by Heerema Marine Contractors of the Netherlands. The vessel is capable of a tandem lift of 8,100 tonnes. Overall length = 154 metres (505 ft) and breadth = 86 metres (282 ft). Total deck load capacity = 8,000 tons. Transit speed with a 8,000 ton deck load = 6 knots at 11.5 meters (38 ft) draft. The living quarters are equipped to accommodate 336 men. All quarters have heating and air conditioning facilities.

On the deck of the *Hermond* are the components of a 2,400-tonne platform, built at the Halifax Shipyards, destined for the ExxonMobil South Venture offshore natural gas site.

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Overview of Nova Scotia Economy, 1999-2004

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Overview of Nova Scotia Economy, 1999-2004

Introduction

This paper provides a brief overview of the Nova Scotia economy, including the relative contribution of each sector to the provincial Gross Domestic Product (GDP) and structural changes in employment over the mid-term period.[1] There is also some discussion on labour productivity in Nova Scotia during the five-year period 1999-2004, and key labour productivity indicators including labour income, wages and salaries, average weekly wages, and capital expenditures.

During the five-year period 1999-2004, the province's economy experienced a healthy growth due to the expansion in the private sector, with approximately ten percent growth in mining and oil and gas extraction (due to introduction of natural gas in 1999-2000) and in administrative, support and waste management services (due to advent of call centers and recycling activities).

Significant growth was also observed in information and cultural industries, professional, scientific and technical services and retail trade sector. Construction, utilities, arts, entertaining and recreation, accommodation and food services, educational services and public administration all experienced less than two percent real GDP growth during the same time period.

In order to evaluate the overall economic performance of each sector of Nova Scotia's economy, a composite index was created based on the six indicators of economic performance. The indicators used in development of this composite index included the compound annual growth rates in GDP, employment, labour income, average weekly wages and salaries, and capital investment for 1999-2004, as well as the labour productivity index for the same time period. Each sector was ranked from the highest to lowest for each of GDP, employment, labour income, average weekly wages, capital investment and productivity. Next, the ranking scores for each of the six indicators were added up for each sector to create an overall ranking by sector (Appendix 1). The lowest total ranking score was ranked as 1 and the highest total ranking score was ranked as 18.

The best economic performance during the 5-year period 1999-2004, based on the composite index was observed in administrative, support and waste management sector, followed by the health care and social assistance and retail trade. The educational services and agriculture, forestry, fishing and hunting sectors' ranking were the fourth and fifth highest among all Nova Scotia's sectors between 1999 and 2004.

The public administration performance was ranked the twelve the best in Nova Scotia for 1999-2004, while the finance, insurance, real estate and leasing sector was ranked the fifteenth. The lowest performance was observed in the whole sale trade sector, followed by construction and transportation and warehousing.

[1] Five-year period is considered to be a mid-term period. Since the latest annual statistics is available for 2004 the 5-year period chosen for analysis is 1999-2004.

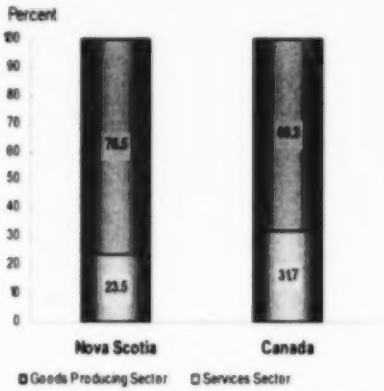
Economic Structure

The Nova Scotia economy is predominantly service-based. The Province's services sector is proportionally larger than that of Canada. In 2004, 76.5% of the provincial economy was within the services sector, compared to 68.3% for Canada (See Figure 1). The goods producing sector accounted for 23.5% of Nova Scotia's economy in 2004, compared to 31.7% for Canada in 2004. This represents Nova Scotia's long established position as the principal private sector service centre for Atlantic Canada and the centre for regional public administration and defence.

The services sector includes a wide range of business and financial services, wholesale and retail trade, transportation and warehousing, personal services, health and educational services, public administration, defence and other federal departments. The goods producing sector includes manufacturing, construction, utilities and primary industries.

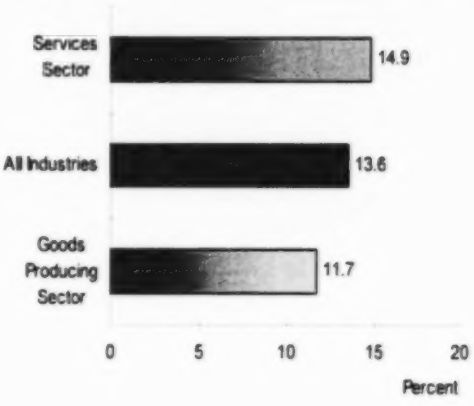
From 1999 to 2004 the provincial economy expanded by 13.6%. The services sector, in general, outperformed the goods producing sector during this time period. While GDP[2] in the services sector grew by 14.9%, the GDP in the goods producing sector grew only by 11.7% between 1999 and 2004, mainly as a result of the contraction in the shares of real GDP in construction, manufacturing and utilities by 0.6 percentage points, 0.4 percentage

Figure 1: Contribution of the Goods Producing and Services Sectors to GDP [%], Nova Scotia and Canada, 2004.



Source: CANSIM Tables 370-0025 and 370-0017.

Figure 2: GDP Growth by Sector [%], Nova Scotia, 1999-2004.



Source: Statistics Canada, GDP by Industry in Chained 1997$, Catalogue No 15-203-XIB, November 8, 2005.

[2] In chained 1997 dollars.

points and 0.1 percentage points, respectively from 6.7% to 6.1%, from 10.6% to 10.2% and from 2.5% to 2.4% of the provincial economy, respectively (Table 1).

Over the five-year period 1999-2004, Nova Scotia's real GDP grew at a compound annual growth rate of 2.6%. The growth in the services sector was above the annual growth rate of the entire Nova Scotia economy and faster than in the goods producing sector, at 2.8% and 2.2% respectively for 1999-2004.

However, within the services sector the private sector compound annual growth rate was 2.3 times faster than the public sector's growth rate. As a result, the services sector's share of the provincial economy, expressed by the share of provincial GDP, increased from 76.0% in 1999 to 76.5% in 2004, while the goods producing sector's share declined from 24.0% in 1999 to 23.5% in 2004.

Within the goods producing sector, the growth in primary industries was more rapid than in the secondary industries, at 4.1% and 1.5%, respectively for 1999-2004 (Figure 3).

The fastest growing sectors in the province were mining and oil and gas extraction and administrative, support and waste management services, which grew at the compound annual rates of GDP growth of 9.6% and 9.7%, respectively between 1999 and 2004 (Figure 4). The provincial shares of GDP for the mining and oil and gas industry increased from 1.3% in 1999 to 1.8% in 2004, while for administrative and support services from 1.3% in 1999 to 1.9% in 2004.

Table 1. Compound Annual Growth in GDP (CAGR) and Shares of Total Provincial GDP by Industry, Nova Scotia, 1999-2004.

Industry	CAGR 1999-2004 [%]	Share of Total Provincial GDP	
		1999 [%]	2004 [%]
Total	**2.6**	**100.0**	**100.0**
Goods Producing Sector	**2.2**	**24.0**	**23.5**
Primary Industries	**4.1**	**6.7**	**7.2**
Agriculture, Forestry, Fishing & Hunting	3.3	2.9	3.0
Mining & Oil & Gas Extraction	9.6	1.3	1.8
Utilities	1.8	2.5	2.4
Secondary Industries	**1.5**	**17.3**	**16.3**
Manufacturing	2.0	10.6	10.2
Construction	0.6	6.7	6.1
Services Sector	**2.8**	**76.0**	**76.5**
Private Sector	**3.4**	**50.7**	**52.5**
Retail Trade	3.9	6.4	6.8
Wholesale Trade	2.5	4.9	4.9
Transportation & Warehousing	2.5	4.4	4.4
Finance, Insurance, Real Estate & Leasing	3.1	21.1	21.4
Professional, Scientific & Technical Services	3.8	2.9	3.0
Information & Cultural Industries	5.7	3.9	4.5
Arts, Entertainment & Recreation	1.2	0.7	0.6
Accommodation & Food Services	1.4	2.7	2.5
Administrative, Support & Waste Management	9.7	1.3	1.9
Other Services	3.3	2.4	2.4
Public Sector	**1.5**	**25.3**	**24.0**
Educational Services	0.6	6.1	5.5
Health Care & Social Assistance	2.8	8.1	8.1
Public Administration	1.1	11.2	10.3

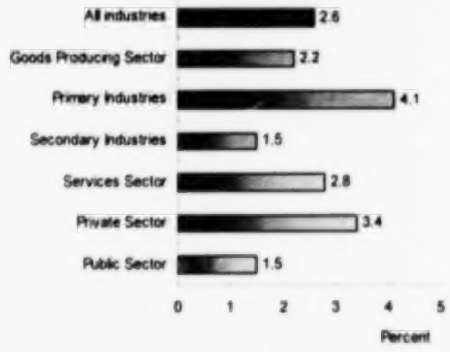
Source: Statistics Canada, GDP by Industry in Chained 1997$, Catalogue No 15-203-XIB, 2004 data released November 8, 2005.

The growth in information and cultural services, retail trade and professional, scientific and technical services also exceeded the compound annual growth rate for the overall Nova Scotia economy for 1999-2004, by growing at the compound annual growth rates of 5.7%, 3.9% and 3.8%, respectively between 1999 and 2004. The provincial shares of GDP for the information and cultural services sector increased from 3.9% in 1999 to 4.5% in 2004, for the retail trade increased from 6.4% in 1999 to 6.8% in 2004, and for professional, scientific and technical services from 2.9% in 1999 to 3.0% in 2004.

Above average annual sectoral growth was also observed in agriculture, forestry, fishing and hunting, other services, finance, insurance, real estate and leasing (FIRE) sector, and health care and social assistance, which grew at the compound annual rates of 3.3%, 3.3%, 3.1% and 2.8%, respectively for 1999-2004. The provincial share of GDP for agriculture, forestry, fishing and hunting increased from 2.9% in 1999 to 3.0% in 2004 and for the FIRE sector from 21.1% in 1999 to 21.4% in 2004. The provincial share of GDP for health care and social assistance, and other services remained unchanged between 1999 and 2004 at 8.1% and 2.4%, respectively.

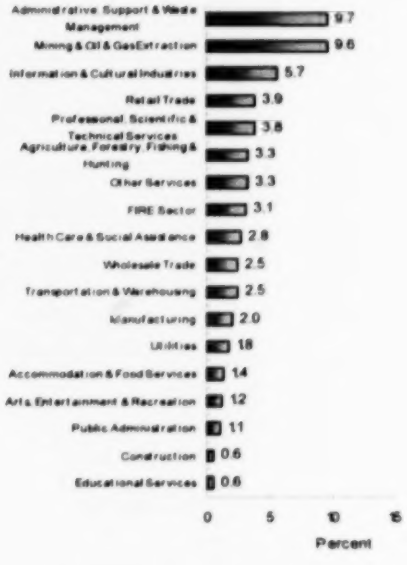
By contrast, educational services, construction, public administration, arts entertainment and recreation services, accommodation and food services, utilities and manufacturing experienced growth below the annual growth rate of the Nova Scotia's economy, as shown by the compound annual GDP growth rates

Figure 3: Compound Annual GDP Growth Rates by Sector, Nova Scotia, 1999-2004.



Source: Statistics Canada, GDP by Industry in Chained 1997$, Catalogue No 15-203-XIB, November 8, 2005.

Figure 4: Compound Annual GDP Growth Rates by Industry, Nova Scotia, 1999-2004.



Source: Statistics Canada, GDP by Industry in Chained 1997$, Catalogue No 15-203-XIB, November 8, 2005.

of 0.6%, 0.6%, 1.1%, 1.2%, 1.4%, 1.8% and 2.0%, respectively for 1999-2004.

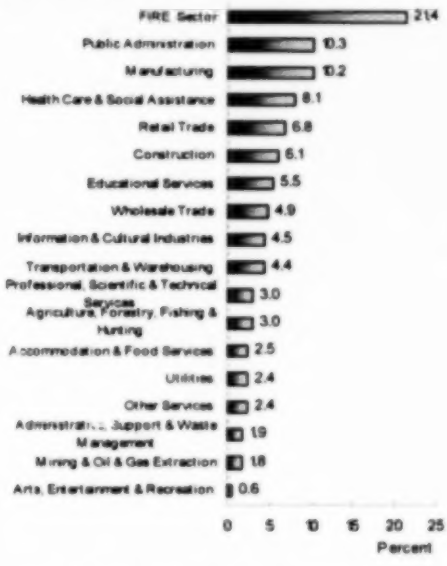
The most significant decline in the provincial share of GDP was observed in the public administration sector, which declined by 0.9 percentage points from 11.2% of the total provincial GDP in 1999 to 10.3% in 2004. The provincial share of GDP for educational services, construction and manufacturing declined by 0.6 percentage points, 0.6 percentage points and 0.4 percentage points, respectively in the same time period.

The growth in the transportation and warehousing and wholesale trade was slightly below the annual growth rate of the Nova Scotia's economy, both at 2.5% for 1999-2004. The provincial share of GDP for both sectors remained unchanged at 4.4% and 4.9%, respectively for 1999-2004.

Although, the manufacturing sector and utilities experienced moderate growth in GDP, at 2.0% and 1.8% respectively, both sectors showed declines in their provincial shares of GDP by 0.4 percentage points and 0.1 percentage points, respectively for 1999-2004.

In 2004, Nova Scotia's manufacturing shipments increased by 17.6% over 1999 level, surpassing $9.2 billion for the first time.

Figure 5: Shares of Total Provincial GDP by Industry, Nova Scotia, 2004.



Source: Statistics Canada, GDP by Industry in Chained 1997$, Catalogue No 15-203-XIB, November 8, 2005.

The manufacturing sector in Nova Scotia has been met with many challenges over the 5-year period between 1999 and 2004, such as the appreciation of the Canadian dollar, increasing competition from China, changing customer demands and increasing business costs due to growing energy prices.

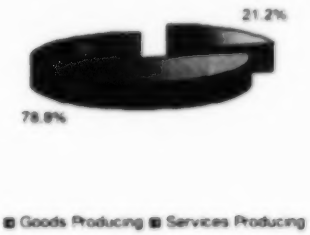
Employment

Between 1999 and 2004, Nova Scotia's total employment gain, for the population 15 and over, was 9.5% or 38,200 new jobs in the province. The employment growth in the province was driven primarily by large increases in a few, mainly service related, industries and a significant increase in labour participation rate from 60.8% in 1999 to 64.1% in 2004. The participation rate in Nova Scotia appears to have plateaued in 2004 at 64.1%. This is the highest the rate has ever been in the province and may mark the high point in the province's participation rate for the medium term. Demographics and a tightening labour market will cause this to increase in the future.

The economic diversification of the province is reflected in where Nova Scotians are employed among the economy's industrial sectors. Distribution of employment between the goods and services producing sectors slightly changed with 78.8% jobs in the services producing sector in 2004, up by 0.7 percentage points from 1999, and 21.2% of the jobs in the goods producing sector, down by 0.7 percentage points from 1999 (Table 2 and Figure 6).

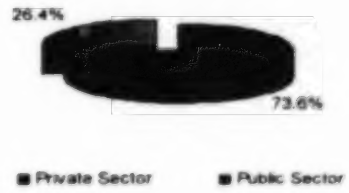
From 1999 to 2004, the compound annual growth rate in total employment in Nova Scotia was 1.8%, with a higher growth rate in the services producing sector than in the goods producing sector, at 2.0% and 1.1%, respectively. Since the services sector is significantly larger than the goods producing sector, the major employment gains, approximately 33,100 or 86.6% of the new jobs, were in the services sector, including 19,600 new jobs in the private sector and 13,500 new jobs in the public sector[3] (Figures 7 and 8).

Figure 6: Distribution of Employment between the Goods Producing and Services Sectors, Nova Scotia, 2004.



Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

Figure 7: Distribution of Employment between the Private and Public Sectors, Nova Scotia, 2004.



Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

[3] Including 6,500 new jobs in health care and social assistance, 5,300 new jobs in educational services and 1,700 new jobs in public administration created between 1999 and 2004.

However, the structural change was observed in the services sector where growth in employment shifted from the private sector to the public sector. From 1999 to 2004, the compound annual growth rate in employment in the public sector was much faster than in the private sector, at 2.5% and 1.8%, respectively. As a result of this structural change, the share of the public sector employment increased from 25.6% of total provincial employment in 1999 to 26.4% in 2004, while the share of the private sector employment in the services sector slightly declined from 52.5% in 1999 to 52.4% in 2004.

The double-digit growth in employment was observed in the business, building and other support services, where approximately 10,600 new jobs were created, mainly due to the proliferation of new call centers in the province (Table 3). The compound annual growth rate in employment in this industry was 11.7% for 1999-2004 (Figure 9). The share of total provincial employment in this category increased from 3.5% in 1999 to 5.6% in 2004 (Figure 10).

The second largest increase in employment was in construction, with approximately 6,700 new jobs created in this industry between 1999 and 2004. The sector grew at the compound annual growth rate of 5.6% in this time period, due primarily to record investment projects in the non-residential sector, including Sable Offshore Energy Project and Maritimes and Northeast Pipeline Project, and robust residential construction activity, fuelled by the low interest rates and high demand for new dwellings. The share of total provincial

Table 2. Compound Annual Growth in Employment by Industry and Shares of Total Provincial Employment by Industry, Nova Scotia, 1999-2004.

Industry	CAGR 1999-2004 [%]	Share of Total Employment	
		1999 [%]	2004 [%]
Total	**1.8**	**100.0**	**100.0**
Goods Producing Sector	**1.1**	**21.9**	**21.2**
Primary Industries	**(1.2)**	**5.7**	**5.0**
Agriculture, Forestry, Fishing & Hunting	(0.9)	4.3	3.8
Mining & Oil & Gas Extraction	(7.5)	0.9	0.6
Utilities	5.6	0.5	0.6
Secondary Industries	**1.9**	**16.2**	**16.2**
Manufacturing	(0.1)	10.9	9.9
Construction	5.6	5.3	6.3
Services Sector	**2.0**	**78.1**	**78.8**
Private Sector	**1.8**	**52.5**	**52.4**
Retail Trade	1.7	13.8	13.6
Wholesale Trade	0.4	3.5	3.3
Transportation & Warehousing	0.6	5.1	4.8
Finance & Insurance,	(2.7)	3.9	3.1
Real Estate & Leasing	3.3	1.8	2.0
Professional, Scientific & Technical Services	2.8	4.4	4.6
Information, Culture, Recreation	1.4	3.8	3.8
Accommodation & Food Services	2.0	7.0	7.0
Business & Building Services	11.7	3.5	5.6
Other Services	(2.4)	5.7	4.6
Public Sector	**2.5**	**25.6**	**26.4**
Educational Services	3.2	7.6	8.1
Health Care & Social Assistance	2.6	11.7	12.1
Public Administration	1.3	6.3	6.2

Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

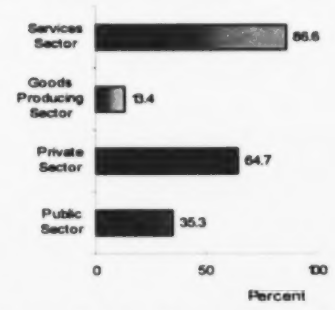
employment in this sector increased from 5.3% in 1999 to 6.3% in 2004.

Job gains in the health care and social assistance sector accounted for approximately 6,500 new jobs created between 1999 and 2004. This sector is the second largest industrial category in Nova Scotia labour market and employed 12.1% of all employed workers in the province in 2004. Despite a moderately higher compound annual growth, at 2.6%, compared to 1.8% for all industries, the share of total provincial employment in this sector increased from 11.7% in 1999 to 12.1% in 2004.

Significant growth in employment was also observed in educational services, with 5,300 new jobs created between 1999 and 2004. This sector experienced almost twice as fast job growth as the overall economy, at the compound annual rate of 3.2% for 1999-2004. As a result, the share of total provincial employment in this sector increased from 7.6% in 1999 to 8.1% in 2004.

The retail trade sector, the single largest industrial category in Nova Scotia labour market, created approximately 4,800 new jobs between 1999 and 2004, despite a slightly slower compound annual growth in employment than in all industries in Nova Scotia, at 1.7% compared to 1.8% for all industries for the same time period. The share of total provincial employment in this sector declined by 0.2 percentage points from 13.8% in 1999 to 13.6% in 2004. Despite relatively slow growth in employment, retail trade sales in Nova Scotia

Figure 8. Employment Growth by Sector, Nova Scotia, 1999-2004.



Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

Figure 9. Compound Annual Growth in Employment by Industry, Nova Scotia, 1999-2004.

Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

increased by 19.5% in 2004 over 1999 level, and reached $10.3 billion in 2004.

Job gains in accommodation and food services accounted for approximately 2,900 new jobs created between 1999 and 2004. The compound annual growth in employment in this sector was 2.0%, 0.2 percentage points above the growth in employment in all industries in Nova Scotia for 1999-2004. The share of total provincial employment in this industry remained unchanged at 7.0% between 1999 and 2004. At the same time, tourism receipts were up by 9.8% over 1999 level to $1.3 billion in 2004.

Significant growth in employment was also observed in professional, scientific and technical services, with 2,600 new jobs created between 1999 and 2004. The compound annual growth rate in this industry was 2.8% for 1999-2004. The share of total provincial employment in this sector increased from 4.4% in 1999 to 4.6% in 2004.

Other industries, that have also shown higher than the average Nova Scotia employment compound annual growth rate, include utilities and real estate and leasing. The compound annual growth rates of those industries were 5.6% and 3.3%, respectively for 1999-2004. Housing starts in Nova Scotia were up by 11.0% in 2004 from 1999 level. Capital expenditures on residential building construction reached $1,462 million in 2004, a 47.6% increase from 1999 level. The value of building permits in the province rose 11.0% over 2003 to $1,126 million in 2004.

By contrast, the mining and oil and gas extraction industry, the finance and insurance, other services, agriculture,

Table 3. Largest Increase in Employment by Industry, Nova Scotia, 1999-2004.

Largest Increase in Employment 1999-2004	Employment Growth [Persons]	Employment Growth [%]
Business, Building & Other Services	10,600	74.1
Construction	6,700	31.2
Health Care & Social Assistance	6,500	13.8
Educational Services	5.300	17.3
Retail Trade	4,800	8.6
Accommodation & Food Services	2,900	10.3
Professional, Scientific & Technical Services	2,600	14.7

Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

Figure 10. Shares of Total Provincial Employment by Industry, Nova Scotia, 2004.

Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

forestry, fishing and hunting, and manufacturing experienced declines in employment, as shown by the negative compound annual rate of growth of employment -7.5%, -2.7%, -2.4%, -0.9% and -0.1%, respectively for 1999-2004 (Figure 9).

The most significant decrease in employment was observed in the other services sector, where approximately 2,600 jobs were lost between 1999 and 2004. The share of total provincial employment in this sector dropped from 5.7% in 1999 to 4.6% in 2004.

The employment losses in the finance and insurance sector accounted for 2,000 jobs lost, due to the consolidation of banking services with the closure of rural branches and the proliferation of ATM's. The share of total provincial employment in this sector dropped from 3.9% in 1999 to 3.1% in 2004.

The decline in employment, which occurred in the mining, oil and gas extraction industries accounted for 1,200 jobs lost between 1999 and 2004. The share of total provincial employment in this sector dropped from 0.9% in 1999 to 0.6% in 2004. The decline in employment in this sector was mainly attributed to the decrease in direct employment in this industry. After the oil and gas exploration reached a peak in 1999, as a result of the Sable Offshore project, direct employment in the industry has declined even though exploration activities have continued. Despite the size, the industry has been one of the drivers of the provincial economy generating significant economic spin-offs.

Interestingly, despite loosing jobs, this sector experienced the second fastest compound annual growth rate in GDP, at 9.6% between 1999 and 2004 (Table 1).

The employment losses, which occurred in agriculture, forestry, fishing and hunting accounted for approximately 800 jobs lost in those industries between 1999 and 2004. The share of total provincial employment in this sector decreased from 4.3% in 1999 to 3.8% in 2004. Farm cash receipts in 2004 rose by 14.8% over 1999 to $451.35 million. Compared to 1999, receipts in 2004 from farm crops declined by 8.0% to $137.27 million, while receipts from livestock and livestock products increased by 20.3% to $288.94 million in 2004. In 2004, Nova Scotia's fish landings had a value of $697.62 million, which represented 10.8% increase over 1999 level. Over the same time period wood product manufacturing shipments increased by 30.5% over 1999 to $655.81 million in 2004.

Slight decline in employment was also observed in manufacturing sector where approximately 300 jobs were lost between 1999 and 2004. The share of total provincial employment in this sector declined from 10.9% in 1999 to 9.9% in 2004.

The employment increase in public administration accounted for 1,700 new jobs created in the public sector between 1999 and 2004. However, since the compound annual growth in employment in this sector was below the overall growth in employment for all industries, the share of total provincial employment in this sector declined from 6.3% in 1999 to 6.2% in 2004.

Interestingly, the employment growth in the information, culture and recreation industries was below the overall growth

in employment for all industries, at 1.4%, compared to the GDP growth for this sector at 5.7% in 1999-2004 (Table 1). Despite creating only 1,100 new jobs, this sector experienced a significant growth in GDP between 1999 and 2004, which is primarily due to the impact of the telecommunication industry on GDP growth.

Labour Income

Over the five-year period 1999-2004, labour income in Nova Scotia grew at the compound annual rate of 4.3%, with a higher growth in the supplementary labour income than in the wages and salaries, at 5.4% and 4.1%, respectively (Table 4 and Figure 11). As a result, the share of the labour income from wages and salaries decreased from 87.9% in 1999 to 87.2% in 2004, while the share of the supplementary labour income increased from 12.1% in 1999 to 12.8% in 2004.

In general, wages and salaries were growing faster in the services sector than in the goods producing sector, at the compound annual growth rates of 4.8% and 1.9%, respectively between 1999 and 2004 (Figure 12). As a result, the services sector's share of total provincial wages and salaries increased from 75.8% in 1999 to 78.2% in 2004, while the goods producing sector share declined from 24.2% to 21.8% in 2004 (Table 4).

Within the goods producing sector, the primary industries experienced significantly faster growth in wages and salaries than the secondary industries, and grew at the compound annual growth rates of 4.0% and 1.4%, respectively, for 1999-2004 (Figure 12).

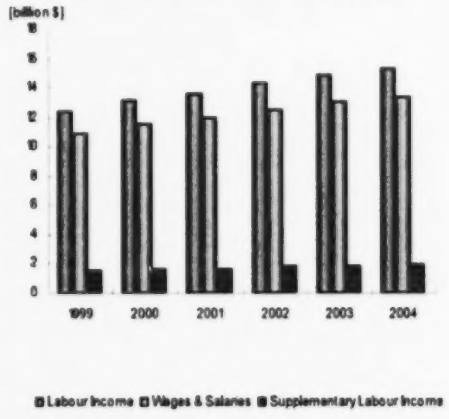
However, within the services sector, the private sector experienced faster growth rates in wages and salaries than the public sector, at 5.1% and 4.3%, respectively, between 1999 and 2004 (Figure 12 and Table 5). As a result, the share of total provincial wages and salaries in public sector increased by 0.3 percentage points from 34.0% in 1999 to 34.3% in 2004, while the share of total provincial wages and salaries in private

Table 4. Components of Labour Income, Nova Scotia, 1999-2004.

Components of Labour Income	CAGR 1999-2004 [%]	Share of Industrial Aggregate	
		1999 [%]	2004 [%]
Labour Income	**4.3**	**100.0**	**100.0**
Supplementary Labour Income	5.4	12.1	12.8
Wages & Salaries	4.1	87.9	87.2

Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

Figure 11. Growth in Components of Labour Income, Nova Scotia, 1999-2004.



Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

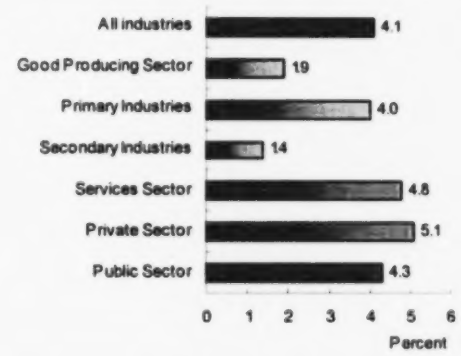
sector increased by 2.0 percentage points from 41.9% in 1999 to 43.9% in 2004.

The fastest growth in wages and salaries was observed in professional and personal services, health care and social assistance, agriculture, forestry, fishing and hunting, which grew at the compound annual growth rates of 7.3%, 6.8% and 6.7%, respectively, between 1999 and 2004 (Figure 13 and 14). As a result, the share of total provincial wages and salaries in the professional and personal services increased from 12.7% in 1999 to 14.8% in 2004, in health care and social assistance from 10.4% in 1999 to 11.9 in 2004, while in the agriculture, forestry, fishing and hunting from 2.1% to 2.4% in 2004.

Over the five-year period 1999-2004, finance, real estate and company management sector, and local public administration also experienced a significant growth in total wages and salaries, at the compound annual growth rates of 5.8% and 5.2%, respectively. The provincial share of total wages and salaries in finance, real estate and company management industry increased by 0.5 percentage points from 6.8% in 1999 to 7.3% in 2004, while in local public administration remained unchanged at 1.4% between 1999 and 2004.

The federal public administration, excluding military, experienced growth in total wages and salaries above the overall industrial aggregate's compound annual growth rate, by growing at 4.8% compared to 4.1% for all industries for 1999-2004. As a result, the share of total provincial wages and salaries in this sector increased from 5.0% in 1999 to 5.2% in 2004 (Table 5).

Figure 12. Compound Annual Rate of Growth in Wages and Salaries by Sector, Nova Scotia, 1999-2004.



Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

Figure 13. Compound Annual Rate of Growth in Wages and Salaries by Industry, Nova Scotia, 1999-2004.

Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

However, after an adjustment for military wages and salaries, the growth rate in wages and salaries for the entire federal public administration sector was 3.5%, 0.6 percentage points below the provincial average of 4.1% for 1999-2004. The share of total provincial wages and salaries in the federal public administration declined by 0.3 percentage points from 9.8% in 1999 to 9.5% in 2004 (Figure 14).

The growth rates in wages and salaries in the remaining industries were below the compound annual growth rate for the overall industrial aggregate, that is below 4.1% for 1999-2004.

The slowest growth in wages and salaries was observed in information and cultural industries, construction and manufacturing, which grew at the compound annual growth rates of 0.4%, 0.9% and 1.8%, respectively between 1999 and 2004. The provincial share of total wages and salaries in information and cultural industries decreased by 0.4 percentage points from 2.7% in 1999 to 2.3% in 2004, in construction by 1.1 percentage points from 7.9% in 1999 to 6.8% in 2004, while in manufacturing by 1.2 percentage points from 11.7% in 1999 to 10.5% in 2004.

Provincial public administration also showed a slow growth in total wages and salaries, below the provincial average for the services sector for 1999-2004. The total wages and salaries in this sector grew at the compound annual rate of 2.5% between 1999 and 2004, compared to 4.8% for the services sector for the same time period. As a result, the share of total provincial wages and salaries in the provincial public administration

Table 5. Compound Annual Growth in Wages and Salaries by Industry and Shares of Total Provincial Wages and Salaries by Industry, Nova Scotia, 1999-2004.

Industry	CAGR 1999-2004 [%]	Share of Industrial Aggregate	
		1999 [%]	2004 [%]
Wages and Salaries	**4.1**	**100.0**	**100.0**
Goods Producing Sector	**1.9**	**24.2**	**21.8**
Primary Industries			
Agriculture, Forestry, Fishing & Hunting	6.7	2.1	2.4
Mining & Oil and Gas Extraction	-0.3	1.3	1.1
Utilities	3.4	1.1	1.1
Secondary Industries			
Manufacturing	1.8	11.7	10.5
Construction	0.9	7.9	6.8
Services Producing Sector	**4.8**	**75.8**	**78.2**
Private Sector	**5.1**	**41.9**	**43.9**
Trade	3.9	14.3	14.2
Transportation & Storage	3.9	5.4	5.4
Finance, Real Estate & Company Management	5.8	6.8	7.3
Professional & Personal Services	7.3	12.7	14.8
Information & Cultural Industries	0.4	2.7	2.3
Public Sector	**4.3**	**34.0**	**34.3**
Educational Services	2.6	9.7	9.0
Health Care & Social Assistance	6.8	10.4	11.9
Federal Public Administration	3.5	9.8	9.5
Federal Public Admin. excluding Military	4.8	5.0	5.2
Provincial Public Administration	2.5	2.7	2.5
Local Public Administration	5.2	1.4	1.4

Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

declined by 0.2 percentage points from 2.7% in 1999 to 2.5% in 2004

Between 1999 and 2004, the mining and oil and gas extraction sector experienced a decline in total wages and salaries at the compound annual rate of -0.3%, reflecting a decreasing employment in this sector at the compound annual rate of -7.5% over this time period, mainly due to completion of major phases of the Sable Offshore Energy Project and the Maritimes and Northeast Pipeline Project. As a result, the share of total provincial wages and salaries in mining and oil and gas extraction industry decreased by 0.2 percentage points from 1.3% in 1999 to 1.1% in 2004.

Interestingly, despite the slowest growth in total wages and salaries, at the compound annual growth rate of 0.4%, information and cultural industries made a significant contribution to the provincial GDP (compound annual GDP growth rate 5.7% for this sector) between 1999 and 2004. The share of total provincial wages and salaries in the information and cultural industries decreased by 0.4 percentage points from 2.7% in 1999 to 2.3% in 2004.

Figure 14. Shares of Total Provincial Wages and Salaries by Industry, Nova Scotia, 2004.

Source: Statistics Canada, Estimates of Labour Income, Catalogue No 13F0016-XPB.

Average Weekly Wages and Salaries

Over the five-year period 1999-2004, average weekly wages in Nova Scotia grew at the compound annual growth rate of 2.3%, with a slightly higher growth in the services sector than in the goods producing sector, at 2.4% and 2.2%, respectively (Table 6).

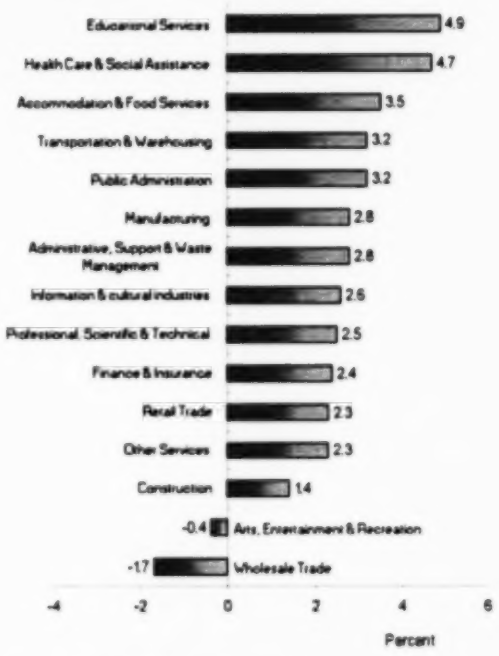
The fastest growth in average weekly wages was observed in educational services, health care and social assistance, accommodation and food services, transportation and warehousing, and public administration, which grew at the compound annual rates of 4.9%, 4.7%, 3.5%, 3.2% and 3.2%, respectively between 1999 and 2004 (Figure 15).

Growth above the overall industrial aggregate's average weekly wages growth rate was also observed in manufacturing, administrative, support and waste management services, information and cultural industries, professional, scientific and technical services, and finance and insurance, which grew at the compound annual growth rates of 2.8%, 2.8%, 2.6%, 2.5% and 2.4%, respectively for 1999-2004.

Construction industry experienced growth in average weekly wages and salaries below the overall industrial aggregate's average weekly wages growth rate, and grew at the compound annual rate of 1.4% over the five-year period 1999-2004.

In contrast, a decrease in average weekly wages and salaries was

Figure 15. Compound Annual Growth in Average Weekly Wages and Salaries by Industry, Nova Scotia, 1999-2004.



Source: Statistics Canada, Employment, Earnings & Hours, Catalogue No 72F0023-XCB.

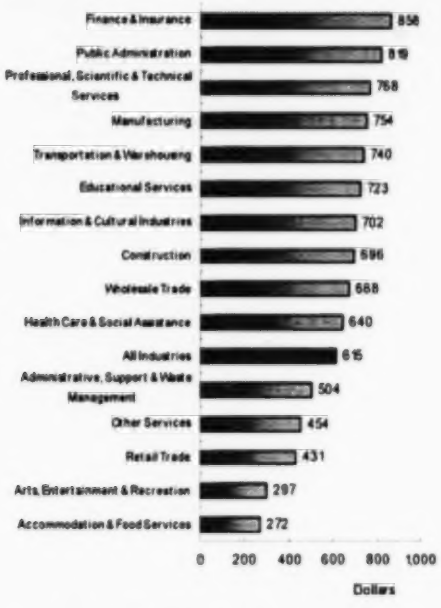
observed in wholesale trade and arts, entertainment and recreation, which declined at the compound annual negative growth rates of -1.7% and -0.4%, respectively between 1999 and 2004.

In 2004, average weekly earnings in Nova Scotia were $614.85, as compared to $706.03 in Canada. In the goods producing sector, in general, the average

weekly wages were higher than in the services sector, at $746.13 and $582.82, respectively for 2004. These figures represent gross earnings, before tax and other deductions, and include overtime.

The highest paying industries in 2004 included finance and insurance, public administration, professional, scientific and technical services, and manufacturing, in which employees earned average weekly wages of $858.30, $819.19, $768.30 and $753.97, respectively (Figure 16). The lowest average weekly wages and salaries were in accommodation and food services,

Figure 16. Average Weekly Wages and Salaries by Industry, Nova Scotia, 2004.



Source: Statistics Canada, Employment, Earnings & Hours, Catalogue No 72F0023-XCB.

Table 6. Compound Annual Growth in Average Weekly Wages and Salaries by Industry, Nova Scotia, 1999-2004.

Industry	CAGR 1999-2004 [%]	Share of Industrial Aggregate	
		1999 [%]	2004 [%]
Industrial Aggregate	**2.3**	**100.0**	**100.0**
Goods Producing Sector	**2.2**	**122.1**	**121.4**
Primary Industries	X	X	X
Agriculture, Forestry, Fishing & Hunting	X	X	X
Mining & Oil and Gas Extraction	X	X	X
Utilities	X	X	X
Secondary Industries			
Manufacturing	2.8	119.4	122.6
Construction	1.4	118.2	113.3
Services Producing Sector	**2.4**	**94.9**	**95.4**
Private Sector			
Retail Trade	2.3	70.1	70.2
Wholesale Trade	-1.7	132.4	108.7
Transportation & Warehousing	3.2	115.1	120.3
Finance & Insurance	2.4	138.5	139.6
Professional, Scientific & Technical Services	2.5	123.7	125.0
Information & Cultural Services	2.6	112.5	114.1
Arts, Entertainment & Recreation	-0.4	55.1	48.3
Accommodation & Food Services	3.5	41.7	44.3
Administrative, Support & Waste Management Services	2.8	79.8	81.9
Other Services	2.3	73.6	74.2
Public Sector			
Educational Services	4.9	103.8	117.6
Health Care & Social Assistance	4.7	92.5	104.1
Public Administration	3.2	127.4	133.2

Source: Statistics Canada, Employment, Earnings & Hours, Catalogue No 72F0023-XCB.

Note: X – Suppressed to meet the confidentiality requirements of the Statistics Act.

arts, entertainment and recreation, retail trade, other services, and administrative support and waste management at $272.23, $296.72, $431.35, $453.92 and $503.78, respectively for 2004.

Finance, insurance, real estate and leasing sector, the highest paying sector in Nova Scotia in 2004, had the highest percentage of permanent jobs among all industries in Nova Scotia. Only 6.0% of all FIRE and leasing industry workers were temporary employees, compared to the provincial average of 17.5%. In addition, the sector employed more full-time workers, on a percentage basis, than the provincial average. In 2004, 17.6% of all FIRE and leasing sector employees worked on part-time basis, compared to the provincial average of 18.9% (Figures 16, 17, 18 and 19). The level of workforce unionization in this sector was very low, at 6.6% for 2004, compared to the provincial average of 28.6% for 2004.

The second highest paying sector in Nova Scotia, public administration, employed significantly more full-time workers, on a percentage basis, than the provincial average in 2004. Only 6.6% of public administration employees worked on a part-time basis, compared to the provincial average of 18.9% in 2004. In addition, only 16.9% of all jobs in the public administration were temporary or term jobs, slightly less than the provincial average of 17.5% for 2004. This sector had the second highest level of unionization of workforce. In 2004, 65.4% of the public administration employees were unionized, as compared to the provincial average of 28.6%.

In contrast, the third highest paying industry, professional, scientific and technical services, which had the same

Figure 17. Permanent Jobs by Industry, Nova Scotia, 2004.

Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

Figure 18. Unionization by Industry, Nova Scotia, 2004.

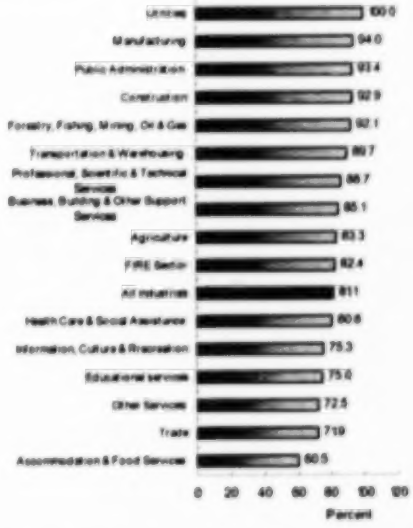
Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

percentage of permanent jobs, like public administration sector, but less full-time jobs, did not have any unionized employees in 2004 (Figure 18). The professional, scientific and technical services employed only 13.3% of part-time workers, compared to the provincial average of 18.9% for 2004. In addition, 83.1% of all jobs in this sector were permanent jobs, compared to 82.5% for all industries in 2004.

Manufacturing sector, which paid the fourth highest average weekly wages in Nova Scotia in 2004, employed significantly more full-time workers, on a percentage basis, than the provincial average. In fact, the percentage of full-time jobs in the manufacturing sector was the second highest among all industries in 2004. Only 6.0% of all manufacturing industry workers were employed on a part-time basis. The number of permanent jobs, on percentage basis was also very high, 86.2% compared to 82.5% for all industries in 2004. Unionization of workers in the manufacturing sector was 24.9%, 3.7 percentage point below the provincial average of 28.6% for 2004.

Although, the level of unionization in educational services was the highest of all industries, at 73.4% for 2004, the high percentage of part-time and temporary jobs contributed to relatively lower average weekly wages. In 2004, the educational services sector employed 25.0% part-time workers, compared to the provincial average of 18.9%. The number of permanent jobs in this sector, on a percentage basis, were 73.4%, which is also below the provincial average of 82.5% for 2004.

Figure 19. Full-Time Jobs by Industry, Nova Scotia, 2004.



Source: Statistics Canada, Labour Force Historical Review 2006, CD-ROM No. 71F0004-XCB.

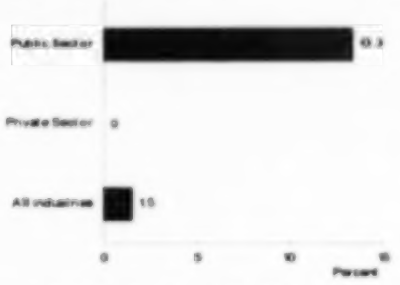
Accommodation and food services, the lowest paying industry in Nova Scotia employed significantly more part-time, temporary and seasonal workers, on a percentage basis, than the provincial average. In 2004, 39.5% of all workers in this sector, aged 15 year and over, were employed on a part-time basis, compared to the provincial average of 18.9% in 2004. In addition, only 79.0% of all jobs in this industry were permanent, as compared to the provincial average of 82.5% in 2004. Unionization of workforce in this sector was very low. Only 3.1% of all employees were union members, compared to the provincial average of 28.6% for 2004.

Capital Expenditures

Nova Scotia registered total capital expenditures of $5.7 billion in 2004, a 7.6% increase over the 1999 level. During the five-year period 1999-2004, total capital expenditures in Nova Scotia grew at the compound annual growth rate of 1.5%, with a rapid growth in the public sector, at 13.3% (Table 7 and Figure 20), mainly due to reinvestment in public services, notably hospitals, P-3 schools and Nova Scotia Community College. Over the same time period the compound annual growth in private sector growth was virtually nil, because of the one-time, huge capital investments in 1999, at the beginning of 5-year period, related mainly to the Sable Offshore Energy Project and Maritimes and Northeast Pipeline Project, as well as expansion of Michelin and STORA. As a result of that substantial capital spending, the public sector share of total provincial capital expenditures increased from 8.7% in 1999 to 15.1% in 2004, while the private sector share declined from 91.3% in 1999 to 84.9% in 2004.

Double digit growth in capital expenditures was observed in retail trade (Wal-Mart and new Big Box stores in Bayers Lake area), educational services (Nova Scotia Community College and P-3 schools), administrative, support and waste management services, accommodation and food services, real estate, rental and leasing, health care and social services (re-investment in hospitals after cuts in 1990s), public administration and housing, which grew at compound annual growth rates of 21.2%, 17.1%, 16.1%, 15.1%, 13.8%, 12.1% and 11.4%, respectively between 1999 and 2004 (Figure 21). Since the

Figure 20. Compound Annual Growth in Capital Expenditures by Sector, Nova Scotia, 1999-2004.



Source: Statistics Canada, Public & Private Investment in Canada, Catalogue No 61-206 XPB.

Figure 21. Compound Annual Growth in Capital Expenditures by Industry, Nova Scotia, 1999-2004.

Source: Statistics Canada, Public & Private Investment in Canada, Catalogue No 61-206 XPB.

retail trade sector accounts for only a small percentage of Nova Scotia's total capital expenditures, despite the rapid growth in investment in this sector, at the compound annual growth rate of 21.2% for 1999-2004, the provincial share of total capital expenditures for this sector increased only by 2.9 percentage points from 2.0% of the total provincial expenditures in 1999 to 4.9% in 2004 (Figure 22).

The most significant increase in the share of the total provincial capital expenditures was observed in the housing sector, which was up by 11.1 percentage points from 18.5% of total provincial capital expenditures in 1999 to 29.6% in 2004. Lower interest rates and lower unemployment was driving up housing investment in the province.

The share of total provincial capital investment in public administration increased by 4.0 percentage points from 6.1% in 1999 to 10.1% in 2004, and in real estate, rental and leasing sector (driven by imports of autos) increased by 2.6 percentage points, from 3.2% in 1999 to 5.8% in 2004.

The educational services also showed an increase in the share of total provincial capital expenditures by 1.8 percentage points from 1.7% in 1999 to 3.5% in 2004, reflecting re-investment in P-3 schools and community college, following cuts in 1990s.

During the 1999-2004 period, the goods producing sector experienced a decline in total capital investment, mainly due to the decrease in capital expenditures in mining and oil and gas extraction sector (Sable Offshore Energy Project and

Table 7. Total Capital Expenditures by Industry, Nova Scotia, 2004.

Industry	CAGR 1999-2004 [%]	Share of Industrial Aggregate	
		1999 [%]	2004 [%]
Industrial Aggregate	**1.5**	**100.0**	**100.0**
Goods Producing Sector	X	X	X
Primary Industries	X	X	X
Agriculture, Forestry, Fishing & Hunting	4.7	1.9	2.2
Mining & Oil & Gas Extraction	-11.6	24.6	12.3
Utilities	X	X	X
Secondary Industries	**0.0**	**9.2**	**8.5**
Manufacturing	5.1	1.4	1.7
Construction	-1.1	7.7	6.8
Services Producing Sector	X	X	X
Private Sector	X	X	X
Retail Trade	21.2	2.0	4.9
Wholesale Trade	-5.6	2.6	1.8
Transportation & Warehousing	-18.4	9.9	3.3
Finance & Insurance	-2.3	7.3	6.1
Real Estate, Rental & Leasing	14.2	3.2	5.8
Professional, Scientific & Technical	-3.6	1.0	0.8
Management of Companies	X	X	X
Information & Cultural Services	-10.2	5.9	3.2
Arts, Entertainment & Recreation	-11.1	1.0	0.5
Accommodation & Food Services	15.1	0.6	1.1
Administrative, Support & Waste Management	16.1	0.4	0.8
Other Services	-8.8	0.6	0.3
Housing	11.4	18.5	29.6
Public Sector	**13.3**	**8.7**	**15.1**
Educational Services	17.1	1.7	3.5
Health & Social Services	13.8	0.9	1.5
Public Administration	12.1	6.1	10.1

Source: Statistics Canada, Public & Private Investment in Canada, Catalogue No 61-206 XPB.

Note: X – Suppressed to meet the confidentiality requirements of the Statistics Act.

Maritimes and Northeast Pipeline Project had one-time huge capital investments in 1999 and thereafter declined over time), which showed a negative compound annual growth rate of -12.3% for 1999-2004. The share of total provincial capital expenditures in this sector declined from 24.6% in 1999 to 12.3% in 2004.

At the same time, the total capital expenditures in transportation and warehousing declined at a compound annual rate of -18.4% for 1999-2004. The provincial share of total capital expenditures in this sector declined by 6.6 percentage points from 9.9% in 1999 to 3.3% in 2004.

Since 1999, the transportation and warehousing sector in Nova Scotia has been experiencing a general decline in overall capital expenditures, reflected in the lower spending on capital construction, partially offset by increased capital spending on machinery and equipment. A decline in the capital spending in this sector was partially a result of sharply raising fuel and electricity costs, that industry needed to absorb over a relatively short time period. The soaring cost of gasoline was particularly difficult to absorb in the trucking industry. In addition, the trucking industry had to absorb a 30.6% increase in average hourly earnings in this industry between 1999 and 2004.

The decline in the total expenditures in transportation and warehousing sector was also a result of the fact that several large capital projects were near to completion in 2004. In 2000, Halifax International Airport Authority commenced a phased Airport Improvement Program, which included

Figure 22. Shares of Capital Expenditures by Industry, Nova Scotia, 2004.

Source: Statistics Canada, Public & Private Investment in Canada, Catalogue No 61-206 XPB.

the following projects: the $25.0 million ATB Domestic and International Arrivals Expansion Project which opened in December 2002, the $12.0 million Airport Square Project which opened in November 2003, a $10.3 million water treatment plant and upgrading the water supply system, and a $7.5 million Airside Subdivision Project, which all were completed in 2004.

In 2004, the Port of Halifax was also finalizing completion of a $6.4 million capital project to deepen berths at Fairview Cove Terminal from 14 meters to 17 meters. The completion of this project ensured that the Port of Halifax has the deepest container berths on the

Eastern seaboard, able to accommodate the next generation of container ships.

The decline in capital expenditures was also observed in information and cultural industries, finance and insurance and construction, which experienced a negative growth in capital expenditures of -10.2%, -2.3% and -1.1%, respectively for 1999-2004. The provincial shares of total capital expenditures in those sectors declined by 2.7 percentage points, 1.3 percentage points and 0.9 percentage points respectively between 1999 and 2004.

Labour Productivity

Labour productivity is defined as the ratio of real value added over hours worked. The simplest measure of labour productivity in an individual industry is output divided by hours worked. Productivity, as measured by output per hour worked, improves when GDP increases more rapidly than the number of hours worked. Improvements in productivity imply increased efficiency, that is, labour and capital resources are used in ways that add more value.

Productivity is not only the key to the performance of firms and industries, it is fundamental to raising and maintaining the living standard of a country's residents. Labour productivity, as measured by real GDP (in chained 1997 dollars) per hour worked, is a primary determinant of improvements to the standard of living in the long run. It is also the main source of economic growth. Three main drivers of productivity are human capital, physical capital and innovation.

Labour productivity in selected industry sectors was compared using as a proxy[4] labour productivity index (Table 8 and Figures 23 and 24). In order to calculate a labour productivity index, an index of

[4] Labour productivity index is a proxy that does not take into consideration the effects of changes in the ratio of capital to labour and the ratio of intermediate purchases to labour. Only industry multifactor productivity measures relate output to the combined inputs of labour, capital, and intermediate purchases. However, because of the enormous data requirements for the measurement of capital and intermediate purchases, a very limited number of industry multifactor productivity measures have been published.

Table 8. Labour Productivity Index Q_t/Q_0: L_t/L_0 by industry sector, Nova Scotia, 1999-2004.

Industry	Q_t/Q_0	L_t/L_0	Q_t/Q_0 : L_t/L_0
Industrial Aggregate	**1.14**	**1.05**	**1.08**
Goods Producing Sector	**1.12**	**0.99**	**1.13**
Primary Industries	**1.22**	**1.03**	**1.19**
Agriculture, Forestry, Fishing & Hunting	1.17	1.03	1.14
Mining, Oil & Gas Extraction	1.58	0.71	2.23
Utilities	1.09	1.50	0.73
Secondary Industries	**1.08**	**0.98**	**1.10**
Manufacturing	1.11	0.93	1.19
Construction	1.03	1.06	0.97
Services Producing Sector	**1.15**	**1.07**	**1.07**
Private Sector	**1.18**	**1.12**	**1.06**
Wholesale Trade	1.13	1.18	0.96
Retail Trade	1.21	0.98	1.24
Transportation & Warehousing	1.13	1.12	1.01
Information & Cultural Industries	1.32	0.96	1.37
Finance, Insurance, Real Estate & Leasing	1.16	1.21	0.96
Professional, Scientific & Technical Services	1.20	1.26	0.95
Administrative, Support & Waste Management	1.59	1.77	0.90
Arts, Entertainment & Recreation	1.06	0.85	1.25
Accommodation & Food Services	1.07	1.23	0.87
Other Services	1.18	1.03	1.14
Public Sector	**1.08**	**0.96**	**1.12**
Educational Services	1.03	0.88	1.17
Health Care & Social Services	1.15	0.98	1.17
Public Administration	1.05	0.97	1.09
Federal Public Admin. (except Military)	1.07	1.05	1.02
Defense Services	1.05	0.90	1.16
Provincial Public Administration	1.01	0.81	1.25
Municipal & Local Public Administration	1.13	1.28	0.88

Source: Statistics Canada, CANSIM Tables 383-0010 and 379-0025.

industry output was divided by an index of hours:

$$Q_t/Q_0 : L_t/L_0$$

where:

Q_t/Q_0 = the index of output in the current year (2004),

L_t/L_0 = the index of labour input in the current year (2004),

t = the current year (2004)

0 = the base year (1999)

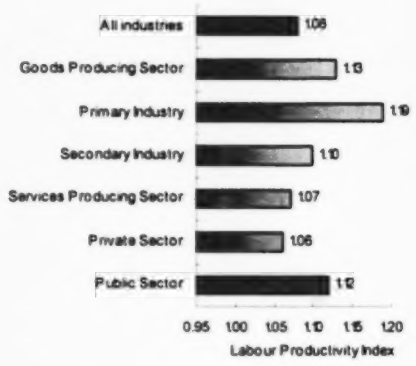
Over the five year period 1999-2004, labour productivity growth for all industries in Nova Scotia was 1.08, and was higher in the goods producing sector compared to the services sector, as illustrated by the labour productivity indexes equal 1.13 and 1.07, respectively, for 1999-2004.

However, within the goods producing sector, the labour productivity index was much higher in the primary industries than in the secondary industries, with $Q_t/Q_0 : L_t/L_0$ indexes equal 1.19 for the primary sector compared to 1.10 for the secondary sector.

Within the services sector, the productivity growth in the public sector was higher than in the private sector, with $Q_t/Q_0 : L_t/L_0$ indexes equal 1.12 for the public sector compared to 1.06 for the private sector (Figure 23).

There is also a wide variation of performance at industry level. The most dramatic gain in labour productivity in Nova Scotia was observed in the mining and oil and gas extraction sector, where

Figure 23. Labour Productivity Index $Q_t/Q_0 : L_t/L_0$ by Sector, Nova Scotia, 1999-2004.



Source: Statistics Canada, CANSIM Tables 383-0010 and 379-0025.

Figure 24. Labour Productivity Index $Q_t/Q_0 : L_t/L_0$ by Industry, Nova Scotia, 1999- 2004.

Source: Statistics Canada, CANSIM Tables 383-0010 and 379-0025.

Q_t/Q_0 : L_t/L_0 index equals 2.23 for the five-year period 1999-2004, reflecting robust growth in GDP, at a compound annual growth rate of 9.6%, combined with a significant decline in employment, at the compound annual rate of -7.5%, and a decline in wages and salaries at the compound annual growth rate of -0.3%, and despite the double digit decline in capital investment, at the compound annual rate of -11.6% (Figure 24).

Information and cultural industries, provincial public administration, arts, entertainment and recreation and retail trade also experienced significant labour productivity growth, with Q_t/Q_0 : L_t/L_0 ratios equal to 1.37, 1.25, 1.25 and 1.24, respectively over the 5-year period.

The labour productivity increases in information and cultural industries were attributed to the rapid growth in GDP, at the compound annual growth rate of 5.7% (impact of innovation and telecommunication industry on GDP growth), coupled with moderate growth in employment, at the compound annual growth rate of 2.8%, and despite a decline in the capital investment, at the compound annual growth rate of -10.2% for 1999-2004.

The increase in the labour productivity observed in the provincial public administration was mainly due to the double digit growth in capital expenditures, at the compound annual growth rate of 12.1%, combined with a slow growth in employment, at the compound annual growth rate of 1.3%, and despite slow growth in real GDP, at the compound annual rate of 1.1%, over the 5-year period 1999-2004.

Arts, entertainment and recreation sector experienced gains in the labour productivity, which were mainly attributed to a very slow growth in employment, at the compound annual growth rate of 1.4%, combined with a decline in average weekly wages and salaries, at the compound annual rate of -0.4%, and despite a significant decline in capital expenditures by -11.1% between 1999 and 2004.

The increase in the labour productivity observed in the retail trade sector was due to a strong growth in GDP, at the compound annual growth rate of 3.9%, a double digit growth in capital expenditures, at the compound annual growth rate of 21.2%, combined with a slow growth in employment, at the compound annual growth rate of 1.7% for 1999-2004.

Over the five-year period 1999-2004, a decrease in labour productivity was observed in the utilities sector, accommodation and food services, local and municipal public administration, administrative, support and waste management services, professional, scientific and technical services, FIRE sector and construction, as shown by Q_t/Q_0 : L_t/L_0 ratios less than 1.0% (Table 8 and Figure 21).

The decline in labour productivity in the utilities sector (Q_t/Q_0 : L_t/L_0 = 0.73) was attributed to much stronger growth in employment than in the real GDP, at the compound annual growth rates of 5.6% and 1.8%, respectively for 1999-2004.

Accommodation and food services sector experienced a decline in the labour productivity (Q_t/Q_0 : L_t/L_0 = 0.87) as a

result of the slow growth in GDP, at the compound annual growth rate of 1.4%, higher than average growth in employment, at the compound annual growth rate of 2.0%, despite a strong growth in capital expenditures, at the compound annual growth rate of 15.1% for 1999-2004.

Over the five-year period 1999-2004, a decrease in the labour productivity was also observed in the local and municipal public administration (Q_t/Q_0 : L_t/L_0 = 0.88), administrative, support and waste management services (Q_t/Q_0 : L_t/L_0 = 0.90), professional scientific and technical services (Q_t/Q_0 : L_t/L_0 = 0.95), FIRE sector (Q_t/Q_0 : L_t/L_0 = 0.96), wholesale trade (Q_t/Q_0 : L_t/L_0 = 0.96) and construction (Q_t/Q_0 : L_t/L_0 = 0.97).

The labour productivity decrease observed in the finance and insurance sector was mainly due to the decline in capital expenditures, at the compound annual growth rate of -2.3%, despite the faster growth in real GDP than in employment, at the compound annual growth rates of 3.1% and of -2.7%, respectively, for 1999-2004.

The decline in labour productivity in the construction sector (Q_t/Q_0 : L_t/L_0 = 0.97) was attributed to much stronger growth in employment than in the real GDP, at the compound annual growth rates of 5.6% and 0.6%, respectively, for 1999-2004. A decrease in the capital expenditures, at the negative compound annual growth rate of -1.1%, also contributed to the decline in productivity in this industry between 1999 and 2004.

Appendix

Sectors' Performance Ranking based on a Composite Index

Table 9. Ranking of Sectors' Performance based on a Composite Index of the Compound Annual Growth Rates of Economic Indicators and Labour Productivity for Nova Scotia, 1999-2004.

Industry	Real GDP	Employment	Wages and Salaries	Average Weekly Wages	Capital Spend-ing	Labour Productivity Index	Ranking of Sectors Performance
Industrial Aggregate	**2.6**	**1.8**	**4.1**	**2.2**	**1.5**	**1.08**	
Goods Producing Sector							
Agriculture, Forestry, Fishing & Hunting	3.3	(0.9)	6.7	X	4.7	1.14	5
Mining & Oil & Gas Extraction	9.6	(7.5)	-0.3	X	-11.6	2.23	11
Utilities	1.8	5.6	3.4	X	X	0.73	6
Manufacturing	2.0	(0.1)	1.8	2.8	5.1	1.19	13
Construction	0.6	5.6	0.9	1.4	-1.1	0.97	17
Services Sector							
Private Sector							
Retail Trade	3.9	1.7	3.9	2.3	21.2	1.24	3
Wholesale Trade	2.5	0.4	3.9	-1.7	-5.6	0.96	18
Transportation & Warehousing	2.5	0.6	3.9	3.2	-18.4	1.01	16
Finance, Insurance, Real Estate, Leasing	3.1	(0.6)	5.8	2.4	3.9	0.96	15
Professional, Scientific & Technical Services	3.8	2.8	7.3	2.5	-3.6	0.95	8
Information & Cultural Industries	5.7	1.4	0.4	2.6	-10.2	1.37	10
Arts, Entertainment & Recreation	1.2	N/A	N/A	-0.4	-11.1	1.25	9
Accommodation & Food Services	1.4	2.0	N/A	3.5	15.1	0.87	7
Administrative, Support & Waste Management	9.7	11.7	N/A	2.8	16.1	0.90	1
Other Services	3.3	(2.4)	N/A	2.3	-8.8	1.14	14
Public Sector							
Educational Services	0.6	3.2	2.6	4.9	17.1	1.17	4
Health Care & Social Assistance	2.8	2.6	6.8	4.7	13.8	1.17	2
Public Administration	1.1	1.3	3.5	3.2	12.1	1.09	12

Note 1: There are some compatibility issues due to the slightly different definitions of few sectors. For example a definition of the information and cultural industries according to NAICS classification is less inclusive than the broader definition of this sector for employment.

Note 2: X – Suppressed to meet the confidentiality requirements of the Statistics Act.